

WO 01/09305

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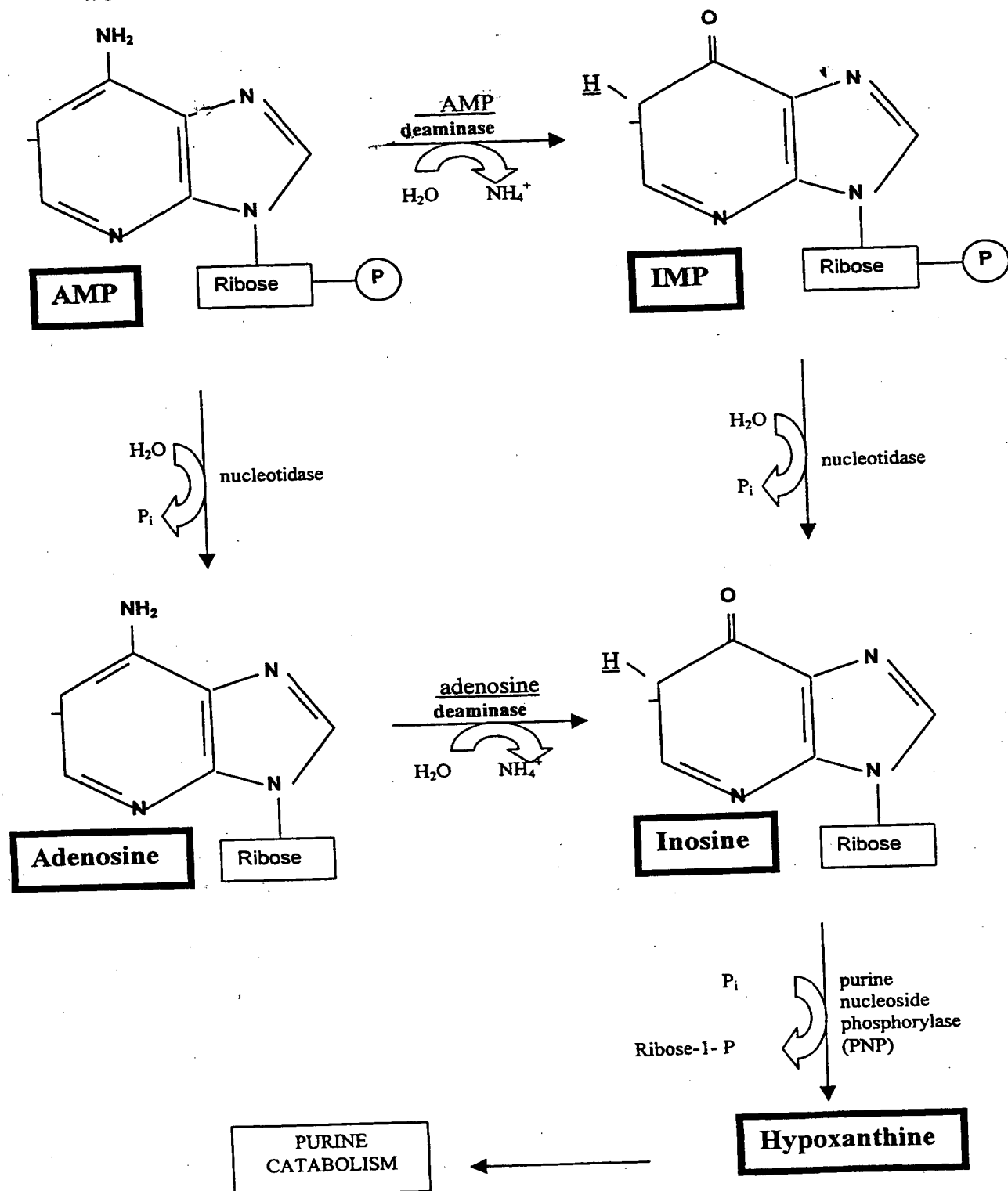


FIGURE 2

Comparison of AMP Deaminase Polypeptides From Corn, Rice, Soybean, and Wheat (SEQ ID Nos:14, 16, 18, and 20) and *Arabidopsis thaliana*

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SEQ ID NO:14      -----EPTADEIE
SEQ ID NO:16      MPKMPVSLTKWND--IGSDPLPGKASQNGDTKVPSTNMIRQSATGSLHGAQHPVAADILRKEPEHETFSRINITAVETPSPDEIE
SEQ ID NO:18      LDTTYLHANGTGPEGKIPFEPLPNHVNANGEQMAITPS-MIRSHSVSGDLHGVPDPDIAADILRKEPEHETFTRLRITPLEAPSPDEIE
SEQ ID NO:20      -----EVPTSDEVE
gi 7484807      M-----ICL-----

SEQ ID NO:14      VFKILXKCLELRDSYLFREEVAPWEKEVINDPCTPKPNPNFTYVPEPKSEHVFTQVDGVIHVYADKDCETESIYPVADATFTFTDLHYIL
SEQ ID NO:16      AYKVLQKCLELRREKYMFREEVAPWEKEIITDPSTPKPNPNFYEQQTKEHHFEMVDGVIHVYPNKDAKERIYPVADATFTFTDMHYIL
SEQ ID NO:18      AYVVLQECLEMRKRYWFREAVAPWDKEVISDPSTPKPNPDPLYIPEGNSDHYFEMQDGVIRVYPDRDAKEELFPVADATFTFTDLHLL
SEQ ID NO:20      -----R-C-----
gi 7484807      AYKCLQECLELRKRYVFQETVAPWEKEVISDPSTPKPNTEPFAHYPOGKSDHCFEMQDGVVHVFAFKDAKEDLFPVADATAFTFTDLHVL

SEQ ID NO:14      RVTAGNTRTVCHNRNLNLEHKEFKFHLMLNADREFLAQKTAAPHRDFYNNVRKVDTHVHHSACMNQKHLRLRFIKSKLRKEPDEVVIFRDGTY
SEQ ID NO:16      RVLAAGDIRTVCYKRLNLEQKFNHLMVNADRELLAQKAAPHRDFYNNVRKVDTHVHHSACMNQKHLRLRFIKSKLRKEPDEVVIFRDGTY
SEQ ID NO:18      RVIAAGNIRTLCHHRLNLEQKFNHLMNADREFLAQKSAAPHRDFYNNVRKVDTHVHHSACMNQKHLRLRFIKSKLRKEPDEVVIFRDGTY
SEQ ID NO:20      -----KF-----
gi 7484807      KVIAAGNIRTLCHHRLVLEQKFNHLMNADKEFLAQKSAAPHRDFYNNVRKVDTHVHHSACMNQKHLRLRFIKSKLRKEPDEVVIFRDGTY

SEQ ID NO:14      MTLKEVFESLDLTGYDLNVLDLVDHADKSTFHRFDKFNLYNPNCGQSRLREIFLQDNLIQGRFLAELTKQVFSLSASKYQMAEYRISI
SEQ ID NO:16      LTLKEVFESLDLTGYDLNVLDLVDHADKSTFHRFDKFNLYNPNCGQSRLREIFLQDNLIQGRFLAELTKQVFSLSASKYQMAEYRISI
SEQ ID NO:18      LTLKEVFESLDLTGYDLNVLDLVDHADKSTFHRFDKFNLYNPNCGQSRLREIFLQDNLIQGRFLGELTKQVFSLSASKYQMAEYRISI
SEQ ID NO:20      -----FSDLNASKYQMAEYRISI
gi 7484807      LTLREVFEESLDLTGYDLNVLDLVDHADKSTFHRFDKFNLYNPNCGQSRLREIFLQDNLIQGRFLGELTKQVFSLSASKYQMAEYRISI

SEQ ID NO:14      YGRKQSEWDQLASWIVNNELHSGNVVWLVIQIPRLYNVYKEMGIVTSFQNLNDNI FVPLFEVTIDPASHPQLHVLKQVVGGLDLVDDESKP
SEQ ID NO:16      YGRKKSEWDQMASWIVNNELYSNVVWLVIQIPRIYNVYREMGITNSFQNLNDNI FFLPLFEVTIDPASHPQLHVLKQVVGGLDLVDDESKP
SEQ ID NO:18      YGRKQSEWDQLASWIVNNELYSNVVWLVIQIPRLYNVYKEMGIVTSFQNMNDNI FIPPLFEVTIDPASHPQLHVLKQVVGGLDLVDDESKP
SEQ ID NO:20      YGRKQSEWDQLASWIVNNELYSNVVWLVIQIPRLYNVYQMGIVTSFQNLNDNI FFLPLFEVTIDPASHPQLHVLKQVVGGLDLVDDESKP
gi 7484807      YGRKMSEWDQLASWIVNNELYSNVVWLVIQIPRLYNVYKMGIVTSFQNLNDNI FIPPLFEATVDPDPSHPQLHVLKQVVGGLDLVDDESKP

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FIGURE 2 (continued)

SEQ ID NO:14	ERRPTKHMPTPEQWTVNPNPFSYAYCYANLFTLNKLRESKGMTTIKFRPHAGEAGVDHDLAATFLCHNISHGINLRKSPVLQYLYY
SEQ ID NO:16	ERRPTKHMPTPEQWTVNPNPFSYAYCYANLFTLNKLRESKGMTTIKLRPHCGEAGDIDHLAAAFLTSHNIAHGVNLKSPVLQYLYY
SEQ ID NO:18	ERRPTKHMPTPEQWTVNPNPFSYAYCYANLFTLNKLRESKGMTTIKFRPHSGEAGDIDHLAATFLTCHNIAHGINLRKSPVLQYLYY
SEQ ID NO:20	ERRPTKHMPTPEQWTVNPNPFSYAYCYANLFTLNKLRESKGMTTIKFRPHAGEAGVDHDLAATFLCHNIAHGINLRKSPVLQYLYY
gi 7484807	ERRPTKHMPTPEQWTVNPNPFSYAYCYANLFTLNKLRESKGMTTIKFRPHSGEAGDIDHLAATFLCHNIAHGINLRKSPVLQYLYY
SEQ ID NO:14	LGQIGLAMSPLSNNSLFLDYHRNPFTFFQRLGNVSLSTDDPLQIHLTKPLVEEYSIAASLWKLSSCDLCEIARNSVYQSGFSHALKAH
SEQ ID NO:16	LAQIGLAMSPLSNNSLFLDYHRNPFTFFLRLGNVSLSTDDPLQIHLTKPLVEEYSIAASLWKLSSCDLCEIARNSVYQSGFSHRLKSH
SEQ ID NO:18	LAQIGLAMSPLSNNSLFLDYHRNPFTFFLRLGNVSLSTDDPLQIHLTKPLVEEY-----
SEQ ID NO:20	LAQIGLAMSPLSNNSLFLDYHRNPFTFFQRLGNVSLSTDDPLQIHLTKPLVEEYSIAASLWKLSSCDLCEIARNSVYQSGFSHALKAH
gi 7484807	LAQIGLAMSPLSNNSLFLDYHRNPFTFFLRLGNVSLSTDDPLQIHLTKPLVEEYSIAASVWKLSSCDLCEIARNSVYQSGFSHALKSH
SEQ ID NO:14	WIGKNYKRGPGAGNDJHRTNVPHIRVQFREMWRNEMKLVYSDNEILLIPDELDL
SEQ ID NO:16	WIGKNYKRGHDGNDJHQTNPVPHIRIEFRHTIWKEEMELIHLRN-VDIPEIDR
SEQ ID NO:18	-----
SEQ ID NO:20	WIGKNYKRGPSGNDIHRNTVPTIRIEFRDLIWRDEMQLVYLNNVIL-PDEVDO
gi 7484807	WIGKDYKRGPGDNDIHKTNVPHIRVEFRDVTWNE-----IYL---FFTQVNFSL

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FIGURE 3
Comparison of Adenosine Deaminase Polypeptides From Soybean (SEQ ID NO:22) and *E. coli*

SEQ ID NO:22 gi 2506342	MCGENMKQFLKELPKCEHHIHIIEGSLSPALLFELAKTNNIALPDAAADAFKSPQELSRYERFTSLNDFLHYYYIGMSVLINPADYESL MIDT-----TLPLTDIHRHLDGNIRPQTILELGRQYNISLPAQSLETLPVHVQVIANE-----PDIVSFLTKLDWGVKVLASLDACRRV
SEQ ID NO:22 gi 2506342	AYEYLTKANRDGVVHHAEIFFDPO-AHTERGIAVNTVVEGLSAGLKRAEKDFGITSKLILCFLRHLSAEDAKTTYQEA VSLGHFSNGTVAA AFENIEDAARHGLHYVELRFSPGYMAMAHQLPVAGVVEAVIDGVREGRTFGVQAKLIGIMSRFTGEAACQOELEA--FLAH--RDQITA
SEQ ID NO:22 gi 2506342	IGLDSSEVGFPPEIFREIYESAETKGIHRTAHAGEGDTSYISRALDICKVERIDHGIRLAEDENLLKRVAEQGTMLTVCPLSNVRLRCV LDLAGDELGFPGLSFLSHFNRRARDAGWHITVHAGEAAGPESIWQAIRELGAERIGHGVKAIEDRALMDFLAEQIGIESCLTSNIQTSTV
SEQ ID NO:22 gi 2506342	ENVGQLPIRKFLDGGIKFSINSDDPAYFGGYILDNYLAVQEAFLNLKWKYIATSAIEGSWCDDERKAVLLSKVDACAKKYEALL AELAAHPLKTFLEHGIRASINTDDPGVQGVDIIEHYTVAAAPAAGLSREQIRQAQINGLEMAFLSAEEKRALREKVAA-----K